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SCIENTIFIC AND TECHNICAL INFORMATION

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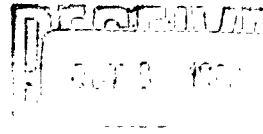
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Peta cryst 10,739, 1957

(21)

Abstract for Congress, International Union of Crystallography, Montreal,
July 10-17, 1957. ~~[20 minutes]~~

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Instrumentation for Diffraction, Micro-optical, Morphological and Dielectric
Investigations of Crystals. (19) R. Pepinsky, K. Drenck, H. Diamant, S. Hoshino, and

T. Mitsui and F. Jona, The Pennsylvania State University.

The following new instruments are described: a miniaturized Weissenberg camera, permitting a focal-spot to film distance of 4.3 cm., for use with our micro-focus x-ray tube; a new Weissenberg for studies at liquid helium temperature; a new heating camera for the Unicam and Supper Weissenbergs; a new heating chamber for powder and single-crystal studies on the G.E. XRD-3 instrument; a new servo-controlled miniaturized x-ray and neutron single-crystal counter goniometer; several new microscope stages for observations at liquid helium and liquid nitrogen temperatures, and a liquid-nitrogen dewar for studies on the Waldmann Chemists' microscope; a new two-circle photoelectric optical goniometer for morphological measurements, which automatically records stereographic projections; a new instrument for single-crystal piezoelectric measurements; new multiple-crystal holders for dielectric measurements at low and high temperatures; a self-balancing bridge and servo-driven recorder for automatic measurement and plotting of dielectric constants versus temperature; a new type of temperature controller and indicator, for use in thermostats at temperatures from -196°C to $+500^{\circ}\text{C}$, with a control accuracy of $\pm 0.05^{\circ}\text{C}$; a system for electrode evaporative coating of hygroscopic crystals, for dielectric studies; and a new string saw for oriented crystal cutting.

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